Tyre Pressure Monitoring System

Hand Held Reader Programmer

TCTH

User manual

TyrePal
A WSL COMPANY
TYRE PRESSURE MONITORING SYSTEMS

Innovative safety solutions for your peace of mind

Wheel Solutions Limited, Unit 2 Upper Keys Business Park, Keys Park Road, Hednesford,

Cannock, Staffordshire, WS12 2GE, United Kingdom

Tel: +44 (0)1543 870 170 e-mail: enquiries@tyrepal.co.uk www.tyrepal.co.uk

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1. INTRODUCTION

The Hand Held Reader Programmer can be used to quickly check all the tyres on a vehicle or trailer. It is also used to set alert levels or to register sensors to each wheel position. It is particularly useful for fleet applications as it is quicker and more convenient than programming through the in-cab monitors.

1.1 Functions

- Read sensor IDs, pressure and temperature
- Store sensor locations and IDs
- Set pressure and temperature display units.
- Set pressure and temperature alert levels for tractor and trailers
- Send all data to monitor and repeater at one time
- Can store data for up to 4 trailers
- Can code up to 24 tyres on each trailer.

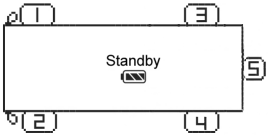
1.2 Power

Insert 2 x AA batteries. Press any button to turn on the display. In standby mode, the unit turns off automatically after three minutes.

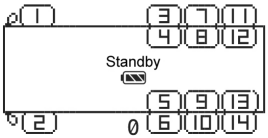
1.3 Screen display

In standby mode, the screen displays an outline of the current vehicle or trailer. The car diagram is only shown if the vehicle type has been set to 'Car'. If 'Heavy Vehicle' has been selected, it will show the tractor, or one of the trailers.

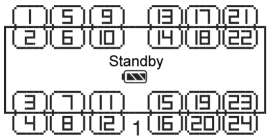
Note the trailer number at the bottom of the screen. Press SET to scroll through the tractor and four supported trailers.



Car



Tractor



Trailer 1

2 SET FUNCTION

In standby mode, press and hold the SET button until a beep sounds. The screen shows the function setting options, with one function flashing.

Function Setting:
1: Vehicle Type
2: Sensor Type
3: Parameter Setting

Press DOWN, UP or the appropriate number key to highlight the required function and press the SEND button to select the option that is flashing. Press SEND again to confirm the selection.

To save the settings and return to standby mode, press and hold the SET button for three seconds (until the beep). You MUST exit by pressing the SEND button for three seconds or the settings will not be saved.

To exit the settings mode without saving, press the SET button briefly. The system will also revert to standby without saving if no buttons are pressed for 2 minutes.

2.1 Select vehicle type

Press DOWN, UP or the appropriate number key to select Vehicle Type and press the SEND button to select the option that is flashing. Again, press the SET button briefly to exit without saving, or press and hold for three seconds (until the beep) to save the settings and return to standby mode.

2.2 Select sensor type

Sensor Type:
1: 4-Digits ID Sensor
2: 6-Digits ID Sensor
3: Siemens Sensor

Press DOWN, UP or the appropriate number key to highlight the required function and press the SEND button to select the option that is flashing.

Choose 6-Digit ID for TyrePal TCE (external) or TCF (external flow-through) sensors.

2.3 Parameter setting

This mode is used to set the pressure and temperature units, the trailer ID and the pressure and temperature limits for the tyres. If you have selected 'Car' as the vehicle, type, the trailer options are not displayed, and the high and low alert levels apply to all the wheels rather than being set per axle.

As before, select with the DOWN, UP or number keys, press the INPUT button to select the option that is flashing and press the SET button briefly to exit without saving, or press and hold for three seconds (until the beep) to save the settings and return to the parameter setting screen.

2.3.1 Trailer ID

Press the up or down buttons to select 0 for tractor, or 1 to 4 to select one of the four possible trailers. Use the number buttons to input a numerical ID code as required.

Press and hold the SEND button to store the setting and return to the parameter settings screen.

2.3.2 Unit setting

Make the required selection and press and hold the SEND button to save.

Unit Setting:
(1) Pressure unit:
1: PSI 2: Bar
(2) Temperature Unit
1: °C 2: °F

2.3.3 High and low pressure alert levels

Set each of the high and low alert levels and press and hold the SEND button to save and move on to the next.

Pressure setting 1 is the first axle of the tractor unit

Pressure setting 2 is the second axle of the tractor

Pressure setting 3 is the third axle of the tractor

Pressure setting 4 is the fourth axle of the tractor

Pressure setting T is for all the tyres on the trailer

Note that the in-cab Monitor for TC215 supports only three axles on the monitor. Axle 2 with wheels 3 to 6 is not used.

2.3.4 Alert temperature

Input a temperature with the number buttons. Note that the alert temperature should be above 70°C.

2.3.5 Exit function setting

When all the parameters have been set, press and hold the SET button for three seconds to save and exit.

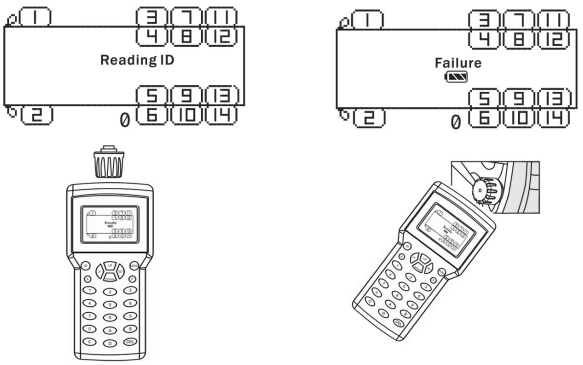
3 REGISTER SENSORS

Sensors are interchangeable and can be registered to any of the possible wheel positions. If a sensor is already coded to another position, the previous position will be deleted. Most sensor types can be registered by proximity, but TB99 compact sensors must be registered by inflation or by direct ID coding

3.1 Register by proximity (Low Frequency)

In Standby mode, use a number button to select the wheel position where a sensor is to be registered. The selected tyre position flashes. Place the reader programmer close to the sensor then press and release the LF button. The display will show 'Reading ID'

If it registers successfully, the sounder will beep once and the display will show the sensor ID, together with pressure and temperature data. If it fails to register, a double beep will sound and the display will show the word 'Failure' for ten seconds.



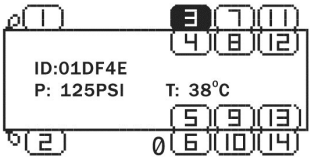
3.2 Register by inflation

In Standby mode, use a number button to select the wheel position where a sensor is to be registered. Press and release the LF button so the display shows 'Reading ID' . Screw the sensor onto the tyre valve. As is it senses the pressure, the sounder will beep once and the display will show the sensor ID, together with pressure and temperature data. If it fails to register, a double beep will sound and the display will show the word 'Failure' .

3.3 Register by ID coding

In standby mode, press the ID button and use the UP/Down keys to select the required tyre position and then the number keys to input the sensor ID. Use the LF or SET buttons to move the cursor to left or right. Press ID again so save and exit.

4 READ SENSOR DATA

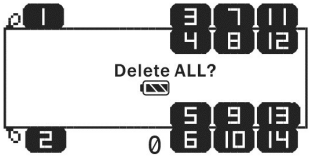


In standby mode, press the UP or DOWN keys repeatedly to cycle through the wheel positions and display the sensor ID together with the current tyre pressure and temperature data.

You can also select a specific wheel position directly with the numerical keys.

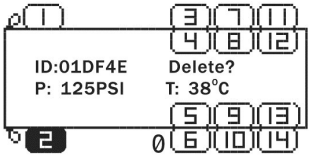
Data is displayed for 10 seconds and then the reader reverts to the standby display.

5 DELETE SENSOR DATA



5.1 Delete all sensor data

In standby mode, press the DEL button. All wheels are highlighted. Press SEND to delete all sensor data.



5.2 Delete individual sensor data

While in reading mode, select the required sensor so the display shows the sensor data. Press the DEL button. Press SEND to delete data for that sensor only.

6 SEND DATA TO TPMS MONITOR OR TRANSCIEVER

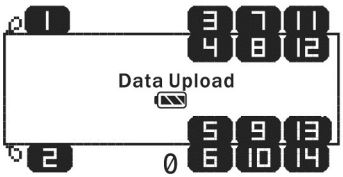
This procedure is used to send the sensor ID, tyre position, pressure and temperature limits from the Hand Held Reader to the in-cab Monitor or Smart Transceiver.

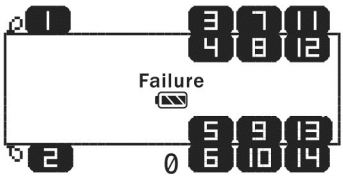
In standby mode, press the PAGE/SET button to select the tractor or trailer required. Press the INPUT button until a beep sound is given and the screen displays 'Data Upload'.

6.1 Send data to TPMS Monitor

Press the MODE button on the TPMS Monitor until it beeps. If the data transfer is successful, the TPMS Monitor displays the tyre icons. If the transfer fails, the Hand Held Reader displays the 'Failure' message.

If the process is not completed within 2 minutes, both the Monitor and the Hand Held Reader return to the standby mode.



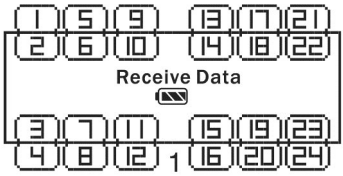


6.2 Send data to Smart Transceiver

Press the button on the Transceiver until it beeps. If the data transfer is successful, the Transceiver gives a single beep and returns to its standby mode. If the transfer fails, the Hand Held Reader displays the 'Failure' message. If the process is not completed within 2 minutes, both the Monitor and the Hand Held Reader return to the standby mode.

7. RECEIVE DATA FROM SMART TRANSCEIVER

In standby mode, press the button on the Transceiver for six seconds and release after the beep sound. Press the UP button on the Hand Held Reader until it gives a beep sound and displays the 'Receive Data' message.



The Hand Held Reader gets the sensor IDs, tyre positions pressure and temperature limits from the Transceiver. If the data is received successfully, the Hand Held Reader goes back to standby mode and displays the tyre icons. If unsuccessful, it gives a beep...beep sound and exits.

8. SPECIFICATION SUMMARY

Size: 150 x 67 x 25mm	Power <9.5dBm
Weight: 110G	Receiving sensitivity: -108dBm
Power supply: 2 x AA 1.5V battery	Working temperature: -20°C to 80°C
Frequency: 433.92MHz	Storage temperature: -30°C to 85°C

9. TROUBLESHOOTING AND ADDITIONAL INFORMATION

Additional information about the system, including detailed product specification, troubleshooting and advice on managing tyre pressures is provided on the TyrePal web site, www.tyrepal.co.uk, where it is regularly updated.

10. SERVICE AND WARRANTY

The system is warranted to be free from manufacturing defects and is guaranteed for a period of twelve months from date of purchase. There are no user-serviceable parts inside and if internal parts have been tampered with, the warranty may be void. The warranty does not affect your statutory rights.